Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Mitigation of Orbital Debris in the New Space Age	)	IB Docket No. 18-313
	)	
	)	

COMMENTS OF SPACE LOGISTICS, LLC

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I. SUMMARY AND INTRODUCTION

Space Logistics, LLC ("Space Logistics") submits these comments in response to the above-captioned notice of proposed rulemaking proceeding.[1] The Federal Communications Commission ("FCC") seeks in the *NPRM* to update and improve its orbital debris mitigation rules in light of market developments in the space industry, including the emergence of on-orbit service providers. Space Logistics supports the FCC's initiative. Ensuring a safe and sustainable orbital environment for all space actors is important and necessary for continued commercial use of space.

The FCC should exercise a measured approach to ensure that any regulatory action it takes continues to facilitate growth of the U.S. space industry, encourage technological innovation, and enhance U.S. leadership in space, consistent with U.S. space policy. In establishing any new policies and regulations, the FCC should also be mindful that other stakeholders, including other government agencies and commercial enterprises, may have considerably more operational and technical expertise, and accordingly, deferring to best practices and standards established by those entities may be in the public interest.

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[1] *See Mitigation of Orbital Debris in the New Space Age*, Notice of Proposed Rulemaking and Order on Reconsideration, IB Docket No. 18-313, FCC 18-159 (rel. Nov. 19, 2018) ("*NPRM*"); *see also* 84 Fed. Reg. 4742 (Feb. 19, 2019).

Moreover, other agencies or departments may initiate in the future or have already initiated separate proceedings regarding orbital debris mitigation policies and standards. The FCC should coordinate closely with those stakeholders to unify the regulatory framework regarding orbital debris mitigation and ensure that any new regulations adopted are comprehensive, clear, and consistent. Without such an approach, U.S. licensees could face overlapping and potentially conflicting regulations, creating business and legal uncertainty.

With respect to the FCC's specific proposals in the *NPRM*, on-orbit service providers, including those conducting rendezvous, proximity operations, and docking ("RPOD"), should disclose that their spacecraft are capable of such operations and when such missions are expected to occur. Such disclosures enhance transparency and facilitate responsible operations. The FCC should not, however, adopt any operational or technical requirements for on-orbit services, including requiring the sharing of information with specific entities, as the FCC proposes. The on-orbit service community has already formed an industry-led organization with the goal of establishing best practices and operating and technical standards. Given the considerable expertise of the participants of this organization and their substantial progress to date, the FCC should defer to these voluntary efforts rather than mandating its own operational or technical requirements for on-orbit services.

The FCC rules should expressly permit geostationary-satellite orbit ("GSO") licensees to extend their license terms through the use of on-orbit services. As mission extension services become more common, recognizing such services as a basis for a license term extension will provide greater certainty for industry and expedite regulatory processing of such requests. For the same reasons, the FCC should expressly permit in its rules a GSO operator, as part of its

orbital debris mitigation plan, to propose direct retrieval and disposal of its satellite to the GSO graveyard, or other appropriate orbit, via an on-orbit service.

The FCC should not impose indemnification or insurance requirements on licensees of GSO satellites, including on-orbit spacecraft servicing those satellites. Such operators are already properly incentivized to make appropriate decisions to protect the GSO orbital environment and their respective space assets, as a result of the long-lived nature of GSO satellites, their relatively high costs, the FCC's renewal expectancy policy, and the fault-based regime for on-orbit operations.

As a policy matter, Congress is a more appropriate body to allocate risk and balance the trade-offs between protecting the United States government from liability and encouraging the growth of the domestic commercial space industry. Indeed, in 1988 Congress did exactly that in establishing a complex liability regime for commercial space launches.

Moreover, the FCC lacks statutory authority to impose indemnity or insurance requirements on satellite operators for orbital debris mitigation purposes. The FCC identifies no express delegated statutory authority to do so and imposing any such requirements would not be reasonably ancillary to its general radio communications licensing authority.

II. BACKGROUND

Space Logistics is developing on-orbit commercial servicing spacecraft, which engage in RPOD activities in space. Such spacecraft include mission extension vehicles ("MEVs"), which have the capability to service multiple on-orbit satellites in geosynchronous orbit by cooperatively docking with the satellites and perform the station-keeping and attitude-control

functions for the docked satellites, and mission extension pods and mission robotic vehicles, both of which are capable of performing additional on-orbit services.[2]

Space Logistics holds the first commercial on-orbit service license awarded by the FCC,[3] and expects to launch its first MEV this year. The company's second MEV is under contract and expected to launch in 2020.[4]

Space Logistics' mission extension services are an outgrowth of the experiences and pioneering efforts of its parent company, Northrop Grumman Innovation Systems, Inc. ("NGIS"),[5] a global leader in the manufacturing and operations of commercial, civil, and U.S. national security satellites and launch systems. The MEV is based on NGIS's GEOStar bus, which NGIS has built and flown more than 30 times.[6] The RPOD subsystem of the MEV is derived from the NGIS Cygnus spacecraft, an advanced maneuvering spacecraft, which performs RPOD operations and berthing maneuvers to provide supplies to the International Space Station ("ISS") for the National Aeronautics and Space Administration.[7] Since 2013, NGIS has built

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[2] *See Space Logistics Services*, Northrop Grumman, https://www.northropgrumman.com/Capabilities/SpaceLogistics/Pages/default.aspx (last visited Mar. 26, 2019).

[3] *See* Application of Space Logistics, IBFS File No. SAT-LOA-20170224-00021 (granted in part, deferred in part Dec. 5, 2017) ("*Space Logistics Application*").

[4] *See, e.g.*, Debra Werner, *Orbital ATK's giant leap into satellite servicing begins with baby steps*, SPACENEWS (June 11, 2018), https://spacenews.com/orbital-atks-giant-leap-into-satellite-servicing-begins-with-baby-steps/; Sandra Erwin & Caleb Henry, *Orbital ATK lands second Intelsat satellite servicing deal*, SPACENEWS (Jan. 4, 2018), https://spacenews.com/orbital-atk-lands-second-intelsat-satellite-servicing-deal/.

[5] NGIS is a wholly-owned subsidiary of Northrop Grumman Corporation and was formed from the merger of Orbital ATK, Inc. and Northrop Grumman Corporation.

[6] *GEOStar™-3 Bus: A Fully Redundant Spacecraft Bus Designed for Geosynchronous Missions*, Northrop Grumman (2018), http://www.northropgrumman.com/Capabilities/GEOStar2-3/Documents/GEOStar-3_Factsheet.pdf.

[7] *See* Space Logistics Application, Narrative at 4.

and flown ten Cygnus spacecraft to the ISS.[8] Based on the company's extensive satellite manufacturing and operational experience and its familiarity with the regulatory regimes necessary for launch and operation of an on-orbit service spacecraft, Space Logistics provides the following comments to the *NPRM*.

III. DISCUSSION

Space Logistics supports the FCC's initiative to update and improve its orbital debris mitigation rules in light of market developments in the space industry. Ensuring a safe and sustainable orbital environment for all space actors is important and necessary for continued commercial use of space. The FCC should exercise a measured approach to ensure that any regulatory action it takes continues to facilitate growth of the U.S. space industry, encourage technological innovation, and enhance U.S. leadership in space, consistent with U.S. space policy.[9] In establishing any new policies and regulations, the FCC should also be mindful that other stakeholders, including other government agencies and commercial enterprises,[10] may have

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[8] *See International Space Station: Historic Flights*, Students for Exploration and Development of Space, http://spider.seds.org/shuttle/iss_p.html (last visited Mar. 27, 2019).

[9] *See, e.g.*, Space Policy Directive-2, Streamlining Regulations on Commercial Use of Space, 83 Fed. Reg. 24901 (May 24, 2018), https://www.whitehouse.gov/presidential-actions/space-policy-directive-2-streamlining-regulations-commercial-use-space/ ("It is therefore important that regulations adopted and enforced by the executive branch promote economic growth; minimize uncertainty for taxpayers, investors, and private industry; protect national security, public-safety, and foreign policy interests; and encourage American leadership in space commerce."); Space Policy Directive-3, National Space Traffic Management Policy, 83 Fed. Reg 28969 (June 18, 2018), https://www.whitehouse.gov/presidential-actions/space-policy-directive-3-national-space-traffic-management-policy/ ("The U.S. Government should streamline processes and reduce regulatory burdens that could inhibit commercial sector growth and innovation."); *Space Council Focuses on Regulatory Reform*, Office of Space Commerce (Feb. 21, 2018), http://www.space.commerce.gov/space-council-focuses-on-regulatory-reform/.

[10] For example, Space Policy Directive-3 assigns to NASA, in coordination with the FCC and other Federal entities, the task of leading efforts to update orbital debris mitigation practices and establishing new guidelines for satellite design and operation. *See* Space Policy Directive-3 *supra* note 9, at Section 6(b)(i); *see also* H.R. 6266 American Space Situational Awareness and Framework for Entity Management Act (proposing to establish the Department of Commerce as

considerably more operational and technical expertise, and deferring to standards established by those entities may be in the public interest.

Moreover, other agencies or departments may initiate in the future or have already initiated separate proceedings regarding orbital debris mitigation policies and standards.[11] The FCC should coordinate closely with those stakeholders to unify the regulatory framework regarding orbital debris mitigation and ensure that any new regulations adopted are comprehensive, clear, and consistent. Without such an approach, U.S. licensees could face overlapping and potentially conflicting regulations, creating business and legal uncertainty.

A. On-orbit service providers should disclose that their spacecraft are capable of on-orbit services, including RPOD operations, and provide notice of such missions.

The FCC proposes in the *NPRM* to require applicants to disclose whether a spacecraft is capable of, and when it will be performing, any on-orbit services, including RPOD operations.[12] Space Logistics supports the proposal. Such basic disclosure and notification requirements are in the public interest because they enhance transparency, facilitate responsible operations, and are not burdensome to the operator. Such disclosures should be included in applicable FCC applications[13] and be subject to the standard FCC administrative process.[14]

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the entity responsible for establishing a space situational awareness policy and space traffic management framework).

[11] *See, e.g.*, Dep't of Commerce, Nat'l Oceanic and Atmospheric Admin., Licensing Private Remote Sensing Space Systems, Advanced Notice of Proposed Rulemaking, 83 Fed. Reg. 30592, 30594 (June 29, 2018) (inquiring whether NOAA should impose satellite insurance requirements for imaging systems).

[12] *See NPRM* at ¶ 68.

[13] Such disclosures would be provided in the context of satellite license application or a modification application of an existing license to operate an MEV with a different client vehicle.

[14] *See* 47 C.F.R. § 25.151.

The FCC should not, however, adopt any operational or technical requirements for on-orbit services, including requiring the sharing of information with specific entities, as the FCC proposes.[15] The FCC should, instead, defer to current industry initiatives to establish best practices and operating and technical standards.

In 2017, the on-orbit services community established the Consortium for Execution of Rendezvous and Servicing Operations ("CONFERS"), an industry-led organization with support and initial funding from the Defense Advanced Research Projects Agency. CONFERS aims to leverage best practices from government and industry to research, develop, and publish consensus-derived operating and technical standards for on-orbit services.[16] CONFERS is open to participation by all companies and academic institutions developing, operating, insuring, and purchasing on-orbit services, including RPOD capabilities. In addition to satellite manufacturers and satellite operators,[17] technical expertise and project support is provided by non-profit and academic institutions, namely the Secure World Foundation, the University of Southern California's Space Engineering Research Center, and the Space Infrastructure Foundation.[18]

CONFERS has published several reference documents already, including *Guiding Principles for Commercial Rendezvous and Proximity Operations (RPO) and On-Orbit Servicing*

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[15] *See NPRM* at ¶ 68.

[16] *See About*, CONFERS, https://www.satelliteconfers.org/about-us/ (last visited Mar. 26, 2019); *see also Guiding Principles for Commercial Rendezvous and Proximity Operations (RPO) and On-Orbit Servicing (OOS)*, CONFERS (Nov. 7, 2018), https://www.satelliteconfers.org/wp-content/uploads/2018/11/CONFERS-Guiding-Principles_7Nov18.pdf.

[17] CONFERS members include: The Aerospace Corporation; Airbus; Analytical Graphics, Inc.; Altius Space Machines; Astroscale; Atomos Nuclear & Space Corporation; AXA XL; Ball Aerospace; BluHaptics, Inc.; Chandah Space Technologies; Cislunar Space Development Company; Effective-Space; Hoffer Flow Controls, Inc.; Honeybee Robotics; iBOSS GmbH; LeoLabs, Inc.; MDA; NovaWurks; OrbitFab; SES; Space Logistics, LLC; SSL, a Maxar Technologies Company; Tethers Unlimited; and Thales Alenia Space.

[18] *Fostering Standards to Enable Commercial Satellite Servicing*, CONFERS (July 2018), https://www.satelliteconfers.org/wp-content/uploads/2018/07/OnePager-062018.pdf.

(OOS)[19] and *CONFERS Recommended Design and Operational Practices*.[20] Given the considerable expertise of the participants of this organization and their substantial progress to date, the FCC should defer to these voluntary efforts rather than mandating its own operational or technical requirements for on-orbit services.[21]

B. The FCC should expressly permit GSO licensees to extend their license terms through use of on-orbit services.

The FCC proposes to codify its current license extension practices requiring certain information and certifications from GSO licensees to demonstrate that an extension is warranted and that the satellite is capable of completing its end-of-life procedures as planned.[22] Space Logistics supports this proposal and further requests that the FCC expressly permit in its rules a GSO licensee to extend its satellite license term by the length of any mission extension service in lieu of such certifications. As mission extension services become more common, recognizing such services as a basis for a license term extension will provide greater certainty for industry and expedite regulatory processing of such requests. For the same reasons, the FCC should expressly permit in its rules a GSO operator, as part of its orbital debris mitigation plan, to propose direct retrieval and disposal of its satellite to the GSO graveyard, or other appropriate orbit,[23] through an MEV or other similar service.[24] Giving operators more options for disposing

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[19] *See supra* note 16.

[20] *CONFERS Recommended Design and Operational Practices*, CONFERS (Feb. 1, 2019), https://www.satelliteconfers.org/wp-content/uploads/2019/02/CONFERS-Operating-Practices-Approved-1-Feb-2019-003.pdf.

[21] Even prior to the establishment of industry efforts, Space Logistics had recognized the importance of adopting corporate principles supporting responsible, transparent, and cooperative operations. *See, e.g.*, Space Logistics Application at 13-14.

[22] *See NPRM* at ¶ 65.

[23] The FCC grandfathered satellites on orbit prior to March 18, 2002, allowing such satellites flexibility in determining whether to comply with the graveyard disposal requirement. *See* 47

of spacecraft will increase operator flexibility and facilitate more efficient use of orbital resources.

C. The FCC should not impose indemnification or insurance requirements on GSO satellite licensees.

In the *NPRM*, the FCC seeks comment on whether licensees should indemnify the United States against any costs associated with a claim against the United States related to its authorized satellites.[25] Relatedly, the FCC seeks comment on whether to adopt insurance requirements as an economic incentive for licensees to engage in greater orbital debris mitigation measures.[26] Space Logistics opposes both proposals with respect to licensees of GSO satellites.[27]

1. GSO satellite operators are properly incentivized to take appropriate orbital debris mitigation measures.

There is no reason to impose indemnity or insurance requirements for licensees of GSO satellites, including spacecraft servicing such satellites. Doing so would unnecessarily increase costs for U.S. GSO satellite licensees, impeding domestic industry growth and technological development and potentially steering satellite investment abroad.[28]

C.F.R. § 25.283(d); *see also Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 ¶ 81(2004) ("*2004 Orbital Debris Order*").

[24] In the *NPRM*, the FCC asks only whether operators of low-Earth orbit space stations should be permitted to propose direct retrieval as a viable post-mission disposal method. *See NPRM* at ¶¶ 52-53. Space Logistics takes no position with respect to that inquiry.

[25] *See NPRM* at ¶ 78.

[26] *See id.* at ¶ 80.

[27] Space Logistics takes no position with respect to NGSO satellite systems but notes that both the operating environment and disposal of such systems via atmospheric re-entry are materially different than that of GSO satellite systems. *See NPRM* at ¶ 80. To the extent the FCC generally adopts indemnity and insurance requirements for all satellite licensees, Space Logistics submits that it should exempt GSO licensees for the reasons stated herein. *See id.* (inviting comments on whether to exempt GSO licensees).

[28] A number of countries have active initiatives to attract investment and businesses in the space industry. *See, e.g.*, Jeff Foust, *Luxembourg establishes space agency and new fund*, SPACENEWS (Sept. 13, 2018), https://spacenews.com/luxembourg-establishes-space-agency-and-new-fund/

For example, an indemnification requirement would increase litigation exposure for U.S. licensees both in terms of the direct assumption of liability and the potential that other parties could claim a right to sue the indemnifying party based on the indemnification requirement. The increased litigation exposure could also result in U.S. licensees having to obtain insurance for potential indemnification claims. With respect to general minimum insurance requirements, many GSO operators, including Space Logistics, already maintain third-party liability policies during the operational lifetime of their satellites for business reasons. There is no reason to conclude that these market-driven insurance decisions are inadequate. Therefore, imposing minimum insurance coverage requirements exceeding market norms would impose additional and unnecessary costs on U.S. licensees.

As the FCC recognized in 2004 and again in the *NPRM*, the primary liability risk associated with a satellite after launch is post-mission disposal of the satellite through atmospheric re-entry, because of the potential risks to life and property on the Earth.[29] No such risk is associated with post-mission disposal of GSO satellites, which are typically relocated to a graveyard orbit above the GSO arc having low spatial density.[30]

(establishing a $116 million Luxembourg Space Fund to support private sector space innovation); Jeff Foust, *New fund to boost Japanese space startups*, SPACENEWS (Mar. 21, 2018), https://spacenews.com/new-fund-to-boost-japanese-space-startups/ (establishing a $940 million fund to be offered to companies in the space sector).

[29] *See 2004 Orbital Debris Order* at ¶ 111 ("We anticipate that insurance and liability issues will continue to play a role in the determination of whether approval of a particular debris mitigation plan serves the public interest, particularly when the plan involve activities such as atmospheric re-entry, which may involve more immediate and substantial risks to persons and property on the surface of the Earth."); *NPRM* at ¶ 80 ("[W]e ask whether GSO space station licensees should be exempt from an insurance requirement since they may present less risk in the post-mission disposal process since they do not typically re-enter Earth's atmosphere.").

[30] *See 2004 Orbital Debris Order* at ¶ 80; 47 C.F.R. § 25.283.

Further, GSO satellite operators are already incentivized to operate and dispose of spacecraft in a responsible and sustainable manner to ensure that they will have continued access to GSO resources. For example, the long-lived nature of the satellites and their relatively high costs ensure that operators take appropriate care in protecting their space assets. The FCC's satellite license renewal policy provides operators a satellite replacement expectancy,[31] which incentivizes each operator to protect its assigned orbital slot beyond the lifetime of any particular operating satellite. Additionally, as the FCC recognizes in the *NPRM*, international treaty establishes a fault-based regime for on-orbit liability (versus strict liability for re-entry liability),[32] which naturally incentivizes operators to take appropriate orbital debris mitigation measures.

At bottom, the post-mission disposal regime for GSO satellites has remained the same for over 15 years ago and is working properly. Accordingly, for all the above reasons, the FCC should not impose indemnity or insurance requirements on GSO licensees.

2. Congress is a more appropriate body to allocate risk for commercial space activities between the United States government and the commercial space industry.

As a policy matter, Congress, not the FCC, should balance the trade-offs between protecting the United States government from liability and encouraging the growth of the domestic commercial space industry. Indeed, Congress did exactly that in 1988 when it "replaced very general insurance requirements with a detailed, comprehensive financial responsibility and allocation of risk regime for commercial launch activities, including a more

[31] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760 ¶¶ 250-51 (2003); *see also* 47 C.F.R. § 25.158(a)(2) (exempting applications for replacement satellites from the filing queue otherwise applicable to new satellite applications); 47 C.F.R. § 25.165 (exempting replacement satellites from the satellite bond requirement).

[32] *See NPRM* at ¶ 80.

explicit exposition of the United States Government's risk-related rights and obligations" with the goal of promoting a robust, domestic commercial launch industry.[33] That Congress is the correct entity to determine whether and how to establish a liability regime and impose indemnity or insurance requirements[34] is also supported by the examples cited by the FCC where the national legislative bodies of other countries enacted laws to impose liability (through indemnification and/or insurance requirements) on satellite licensees.[35]

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[33] *See* Department of Transportation, Financial Responsibility Requirements for Licensed Activities, Notice of Proposed Rulemaking, 61 Fed. Reg. 38992, 38993 (July 25, 1996); *see also* Commercial Space Launch Act Amendments of 1988, 49 U.S.C. §§ 2601 *et seq.* The objective was to be accomplished by, *inter alia*, instituting an equitable allocation of risk between the United States government and the private sector launch industry. As described by the Department of Transportation in that notice:

> Participants in licensed launch activities are protected from potentially unlimited liability by: (1) requiring the licensee to provide insurance (or otherwise demonstrate financial responsibility) based on maximum probable loss determinations that: (a) protects launch participants, including the United States Government, from third-party liability (in an amount not exceeding the lesser of $500 million or the maximum available on the world market at reasonable costs) (49 U.S.C. 70112(a)); and (2) providing for payment by the United States Government of successful third-party claims up to $1.5 billion in excess of the required amount of third-party liability insurance . . . . Taken together, these provisions are intended to achieve a fair allocation among the various parties, including the United States Government, of the risks attendant to their involvement in commercial launch activities.

Id. The statute contains separate provisions regarding liability for claims by the United States government against a launch services provider.

[34] Congress' decision not to establish a statutory liability framework for commercial space operations should not be interpreted as an invitation for FCC or other agency intervention. *See, e.g.*, *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 532 (1947) (Congress through its silence can nonetheless occupy a field and preempt regulations); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000) (history of tobacco-specific legislation creating a regulatory scheme to address the problem of tobacco and health demonstrates that Congress did not intend for the Food and Drug Administration to regulate tobacco products).

[35] *See, e.g.*, UK Space Agency, *Guidance: License to operate a space object: how to apply; Obligations of licensees*, https://www.gov.uk/guidance/apply-for-a-license-under-the-outer-space-act-1986 (last visited Mar. 26, 2019) (establishing indemnity and insurance requirements); Outer Space Act, 1986, c. 38, § 5(2)(f) (U.K.); The Netherlands, Rules Concerning Space Activities and the Establishment of a Registry of Space Objects (English translation provided by

3. The FCC has no statutory authority to impose indemnification or insurance requirements on satellite operators for orbital debris mitigation purposes.

The FCC identifies no express delegated statutory authority in the *NPRM* or the *2004 Orbital Debris Mitigation Order* to impose indemnification or insurance requirements on satellites operators for orbital debris mitigation purposes.[36] Two of the statutory provisions discussed by the FCC[37] are essentially policy statements and do not convey any express delegation of authority,[38] and the remaining statutory provision identifies only the FCC's general Title III authority to license radio transmissions.[39] Further, the FCC cannot promulgate any indemnification or insurance requirements under its ancillary jurisdiction authority because the FCC does not have general authority to regulate spacecraft or orbital debris and the proposed requirements are not reasonably ancillary to the FCC's effective performance of its general Title III licensing responsibilities.[40]

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the Netherlands) at Section 3(4), *available at* http://www.unoosa.org/oosa/en/ourwork/spacelaw/nationalspacelaw/netherlands/space_activities_actE.html (last visited Mar. 26, 2019) (imposing insurance requirement); Sweden, Act on Space Activities (Unofficial Translation) at Section 6, *available at* http://www.unoosa.org/oosa/en/ourwork/spacelaw/nationalspacelaw/sweden/act_on_space_activities_1982E.html (last visited Mar. 26, 2019) (imposing indemnification requirement).

[36] *See NPRM* at ¶ 15 n. 46; *see also 2004 Orbital Debris Order* at ¶ 14.

[37] *See* 47 U.S.C. § 303(g) (encouraging "the larger and more effective use of radio in the public interest"); *id*. at § 307(a) (requiring license grants to be approved "if public convenience, interest, or necessity will be served").

[38] *See, e.g., Comcast Corp. v. F.C.C.*, 600 F.3d 642 (D.C. Cir. 2010) (statutory policy statements do not create statutorily mandated responsibilities and cannot be a basis for ancillary jurisdiction).

[39] *See* 47 U.S.C. § 301.

[40] *See, e.g., Comcast Corp. v. F.C.C.*, 600 F.3d 642 (D.C. Cir. 2010) (FCC does not have ancillary authority to regulate network management practices of an internet service provider); *American Library Association v. F.C.C.*, 406 F.3d 689 (D.C. Cir. 2005) (FCC lacks authority to establish rules applicable to consumer digital television reception devices governing the distribution of the transmitted content after completion of the transmission); *Illinois Citizens*

IV. CONCLUSION

For all of the reasons stated above, Space Logistics requests that the FCC take actions consistent with these comments.

Respectfully submitted,

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Committee for Broadcasting v. F.C.C., 467 F.2d 1397 (7th Cir. 1972) (FCC has no authority to prevent the physical construction of the Sears Tower despite potential harmful interference to the reception of television signals to viewers in the area).